Infinity®

ENVIRONMENTAL REFERENCE STANDARD SERIES

INSTALLATION GUIDE

For Models 840/640/540/440/360

Manuel de l'utilisateur de la série ERS

Congratulations!

You have purchased a high-performance speaker system that will give years of service and provide you with unlimited musical enjoyment. The ERS (Environmental Reference Standard) Series is specifically designed for flush mounting in your home or office. Five models are available – ERS 840, 640, 540, 440, and 360 – to match your application and budget. The ERS 360 is a unique design with a circular frame for ceiling mounting. All models come with our easy-mount frame which, along with the perforated metal grille, can be painted to match or complement any room decor.

We recommend you read these instructions thoroughly before attempting to install and operate your Infinity ERS Series wall-mount speakers.

Please save these instructions for future reference. Also, save your bill of sale to protect your purchase and aid us with any service-related questions.

Unpacking

1. Unpack and carefully check each speaker. If you suspect damage from transit, report the problem immediately to your dealer and/or delivery service.
2. Save the shipping cartons and packing materials for future use.
3. Verify that the package includes two sets of the following items (one for each speaker), as shown in Figure 1 (on next page):
   - Speaker/Frame Assembly
   - Grille
   - Paint Mask (not shown)
   - Mounting Template (not shown)
   - Infinity Logo (self-adhesive)

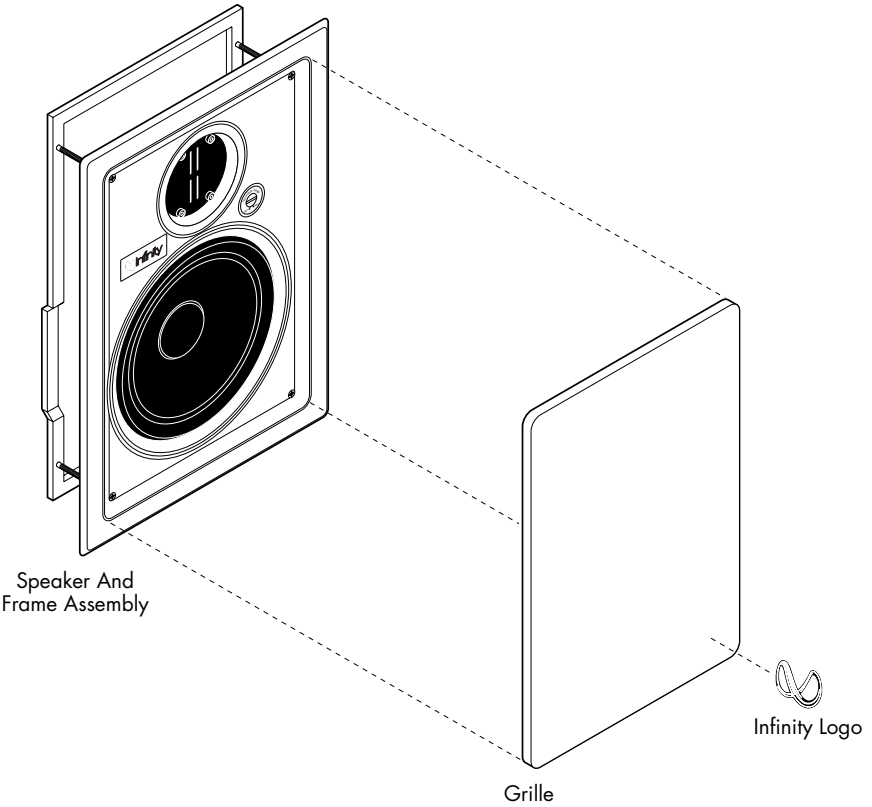

Figure 1. Drawing shows assembly procedure (ERS 840 is shown).

Planning the Installation

When surveying potential installation sites for ERS Series speakers, keep the following points in mind:

- Allow at least a two-inch clearance in all directions behind the wallboard. The assembly is designed for easy horizontal or vertical mounting between wall studs.

  NOTE: Due to its size, the ERS 840 can only be mounted vertically. It will not fit horizontally between standard 16" stud-centers.

- For the best stereo image, position the speakers not less than seven to ten feet apart.

- Examine the proposed path to run speaker cables to the amplifier. Check for any obstacles (e.g., firebreaks) that may hinder a cable run. If needed, consult a custom installation specialist or building contractor to determine the best cable runs in existing construction.
- Keep the speakers at least two to three feet from adjacent walls. Remember, the proximity of your speakers to room corners can drastically affect tonal balance in the bass and lower middle frequencies.
- All speakers except the ERS 360 should be positioned so that the tweeters are at ear level during normal listening sessions. The ERS 360 is designed for ceiling mounting and should be located in front of the listening area. The enclosed mounting templates can be taped to the wall (or ceiling) to get a sense of how the installation will look.

Required Tools and Parts

- Saber or jig saw
- Medium Phillips screwdriver
- Wire strippers
- Awl
- Two-conductor, polarity-coded, stranded speaker wire with gauge determined by the following cable run lengths:

  less than 6 feet – use minimum 18 gauge
  6 to 30 feet – use minimum 16 gauge
  30 to 50 feet – use minimum 14 gauge
- Wire snake
- Level

Installing ERS Series Speakers

ERS Series Speakers use a built-in mounting system that automatically engages when you start fastening the embedded Phillips screws, as shown in Figure 2.

Turning each corner screw (clockwise) moves the mounting frame to sandwich the back of the speaker baffle against the wallboard. With this design, speaker installation is fast and easy.

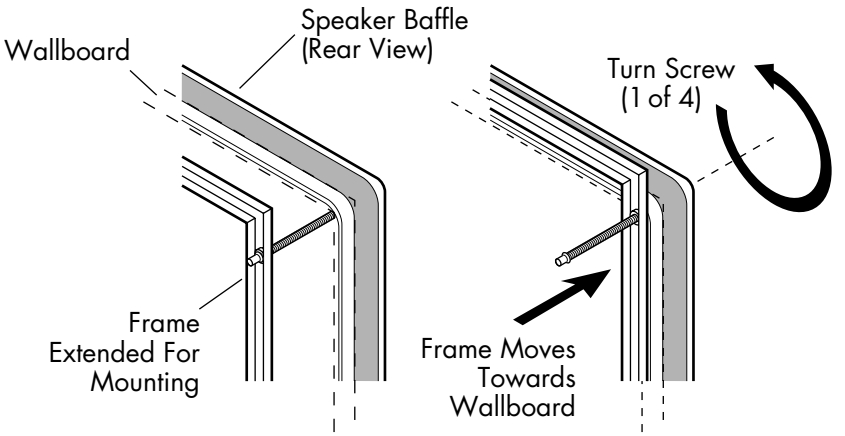

Figure 2. The built-in mounting system used in the ERS 840, 640, 540, and 440 speakers is shown in the extended and closed positions. The ERS 360 has a circular frame, but operates the same way.

1. After selecting a site, use the enclosed Mounting Templates to mark the boundary of each cutout and carefully cut it out. Use a level to find a true horizontal (or vertical) position.
2. **Make sure the amplifier is off before making connections**. Run the speaker cables from the amplifier to each speaker cavity. Use the same lengths for left and right cable runs. Leave at least a 12" service loop to facilitate speaker connection.
3. In order to improve low-frequency accuracy, loosely fill each cutout cavity with dacron or fiberglass insulation material to provide additional acoustic damping (optional).

4. Strip the ends of the speaker wires about ⅜". Twist the wire strands together for terminal insertion. Connect the speaker wires to the appropriate speaker terminals on each speaker, as shown in Figure 3.

IMPORTANT: Make sure you observe the polarity codes (i.e., red is + and black is –).

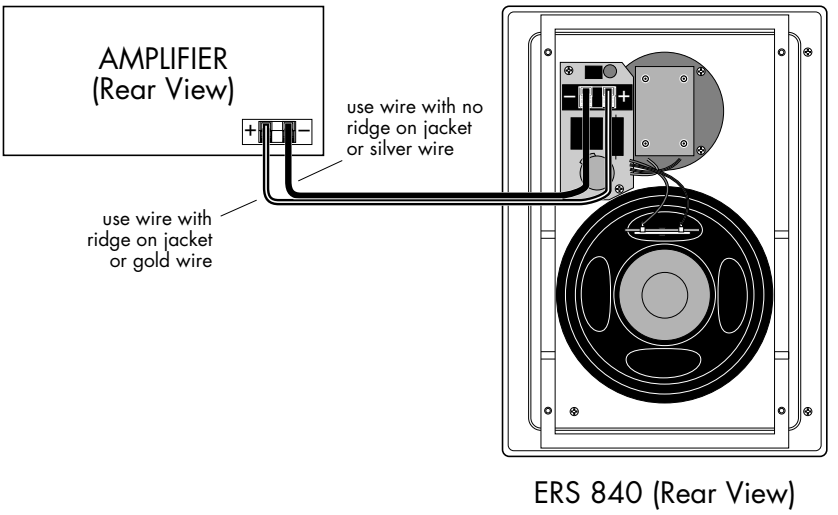

Figure 3. Example of correct wiring connections used on the ERS 840. Other models are wired similarly.

5. Before mounting the speakers, make sure the attached mounting frame is in the extended position (see Figure 2 on page 4). For each speaker, insert the bottom of the mounting frame (and cable) into its respective cavity. Insert the top of the mounting frame into the opening and slide the baffle up to fit the cutout. Equally tighten each of the four Phillips screws (already inserted) to sandwich the mounting frame against the wallboard, as shown in Figure 4 on page 6.

CAUTION: DO NOT OVERTIGHTEN SCREWS! Doing so may damage the assembly.

Installing ERS Series Speakers (cont'd)

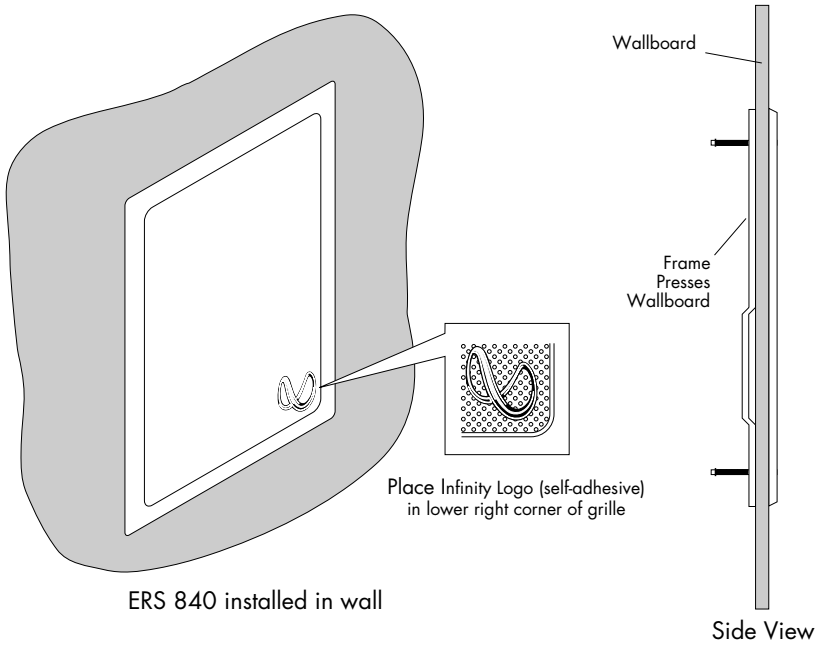

Figure 4. The mounting frame sandwiches the speaker baffle to the wallboard. The ERS 840 is shown here.

6. (Optional) Place paint masks over the speakers before painting the speaker's frame. Paint the grilles before inserting them onto the frames. Be careful not to get paint on the speakers or let it clog the holes in the grilles. Let the paint dry thoroughly before performing the next step.

> *NOTE: If you want to cover the grille with an acoustically-transparent cloth instead of paint, apply a small amount of grille cloth adhesive around the inside edges of the grille and wrap the cloth smoothly around it. After drying, trim any excess cloth from the grille. Consult your Authorized Infinity ERS Series dealer for additional help with this option.*

Adjusting ERS Series Speakers

1. If you purchased an ERS 840 or 640, you will need to adjust the built-in tweeter level control (if not, skip to Step 2). Start with each control at the 12:00 position, and listen to a wide variety of program material. Adjust each control until you hear the high frequencies blend well with the upper midrange frequencies. Generally, once set, each control should remain at the chosen settings unless there is a significant change in the room environment.
2. When finished, gently insert the grilles into the slots on the speaker frames. Place an Infinity Logo (self-adhesive) on each grille (see Figure 4 on page 6). For the ERS 360, place the logo along the grille's circular edge.

> *NOTE: Rooms with heavy drapes, thick carpets and heavily-padded furniture will require more output from the tweeters than rooms with a wide expanse of glass or mirrors, hard floors, or smooth furniture.*

Associated Components

The choice of associated components in your system is critical and should be made with great care. Here are several suggestions:

- Use a high-powered amplifier (see page 9 for minimum/maximum power ratings for ERS models). Higher power results in not only cleaner, more open sound, but insures that the speaker will not be harmed by an overdriven system that is generating distortion.
- Never operate your system with the bass, treble and loudness controls set to full boost. This will place undue strain on the speakers, as well as the amplifier.
- Always turn down the volume control when changing a CD, record or tape, or switching to AM or FM operation. Excessively loud transients (clicks or popping sounds) can damage the speakers.
- Whenever changing cables, pulling plugs, etc., always turn off all equipment to prevent transients from entering the speakers. It is always worthwhile discussing proper speaker connection and component selection with your dealer prior to setting up your system.

A Word About Tone Controls...

The tone controls on your electronic components (e.g., pre-amplifier, receiver, etc.) should be used with the utmost discretion. Excessive boost can create severe power demands on your power amplifier. Maximum bass boost can create a demand for literally hundreds of watts in the bass region, whereas in the "flat" position (or with the tone controls switched out of the system), the average listening level may be impressively and realistically loud at less than 10 watts. The remaining power capacity required is on reserve for power peaks on sharp transients and crescendos.

Nominal impedance refers to how much current is required, on the average, from an amplifier for a given voltage at its output terminals. Impedance is not an indication of quality or accuracy in a loudspeaker.

Solid state amplifiers, properly designed and constructed, will generally deliver more power at 4 ohms. Ask your dealer about the actual power and reliability of your amplifier or receiver at this impedance.

Understanding "Min/Max" Power Ratings

If you intend to use your speakers for background music, or at moderate levels in a small room, an amplifier or receiver with the recommended minimum power rating can be used. But it is important to be aware of potential damage to tweeters that exists when a low-powered amplifier or receiver is played at volumes beyond its normal limits.

At extremely loud listening levels, all amplifiers will "clip" (distort) the peak of musical signals. When this happens, the resulting harsh distortion may contain a considerable amount of supersonic energy which is routed to the tweeters, potentially damaging them.

The ERS 840 employs an internal protection device to help prevent its tweeter from being damaged in the case of overload conditions.

If the sound from the tweeters cuts in and out, especially near your amplifier's power limits, turn the volume down.

The recommended amplifier power ratings to drive Infinity ERS speakers are:

ERS 840 – 15 to 100 watts (rms) per channel

ERS 640 – 10 to 75 watts (rms) per channel

ERS 540 – 5 to 50 watts (rms) per channel

ERS 440 – 5 to 25 watts (rms) per channel

ERS 360 – 5 to 50 watts (rms) per channel

In Case Of Trouble

Contact your Infinity dealer for the name of the authorized Infinity service center nearest you.

If there is no facility near you, contact the Infinity Customer Service Department at (818) 407-0228, by FAX at (818) 709-9486, or write to:

Infinity Systems, Inc.

Customer Service Department

20630 Nordhoff Street

Chatsworth, CA 91311 (U.S.A.).

NOTE: Do not ship your speakers for service without obtaining prior approval ("return authorization"). Make sure you enclose a copy of your original bill of sale. For complete warranty details, see page 10.

LIMITED WARRANTY

Who is protected by the warranty?

Your Infinity warranty protects the original retail purchaser and all subsequent owners for a period of five (5) years (parts and labor) from any failure as a result of an original manufacturing defect so long as: (1) your Infinity loudspeakers were purchased within the fifty United States or by military personnel from an authorized military outlet and (2) the original dated bill of sale is presented whenever service is required during the warranty period. This warranty does not apply to products purchased elsewhere; other purchasers should contact their local Infinity distributor for warranty information.

What does the Infinity warranty cover?

Except as specified below, this warranty covers all defects in original materials and workmanship. The following are not covered: damage caused by accident, misuse, abuse, neglect, product modification; damage occurring during shipment, damage caused by failure to follow instructions in the owner's manual, including failure to perform recommended periodic or routine maintenance; damage resulting from repairs by someone not authorized by Infinity; claims based upon any misrepresentations by the sellers; and any Infinity product on which the serial number has been altered, defaced or removed.

Who pays for what?

During the period of this warranty, subject to the above conditions, Infinity will pay all of the labor and material expenses to repair a warrantable defect.

How can warranty service be obtained?

In the event that your loudspeaker(s) should require service, you should first contact the Infinity dealer from whom the product was purchased or, if this is not practical, contact Customer Service in writing at:

Infinity Systems, Inc., 20630 Nordhoff Street, Chatsworth, CA 91311 USA

or by calling us at (818) 407-0228 (FAX: 818-709-9486)

We may direct you to an authorized service center for Infinity product or ask you to send them to us for repair. In either case you will have to present your original dated bill of sale to establish warranty coverage. Do not send your speaker(s) to us without prior authorization from our Customer Service department.

You are responsible for transporting your product to either Infinity or an authorized service center and for payment of all shipping charges; however, Infinity will pay the return shipping charges (in the event you return the product to us) if the repairs are covered by the warranty. If you experience difficulty in transporting your product or are in need of packing materials, please advise us and we may be able to suggest alternative procedures and/or adequate packaging materials.

LIMITATION OF IMPLIED WARRANTIES: All implied warranties, including fitness for a particular purpose and merchantability are limited in duration to the length of the warranty period for your product.

LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES: Infinity is not responsible for an incidental or consequential damage of any kind. Our liability is limited to the repair or replacement, at our option, of a defective product.

Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

NOTE: In the event that there is a difference between this warranty and the provisions in any advertisements, product brochure or packaging cartons, the terms of this warranty will prevail.

Infinity constantly strives to update and improve existing products, as well as create new ones. Therefore the specifications and construction details in this and related Infinity publications are subject to change without notice.

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